

<110> Splawski, Igor
Keating, Mark T.

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<150> 60/190,057
<151> 2000-03-17

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Ala Leu Tyr Ala Pro Ile Ala Pro Gly Ala Pro Gly Pro Ala Pro Pro
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ccg cgg ccg ccg gtg agc cta gac ccg cgc gtc tcc atc tac agc acg 288
Pro Arg Pro Pro Val Ser Leu Asp Pro Arg Val Ser Ile Tyr Ser Thr
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cct Pro	ccg Pro	gat Asp	tcc Ser	agg Arg	acc Thr	tgg Trp 1095	agc Ser	cag Gln	gtg Val	tca Ser	gcg Ala 1100	act Thr	gcc Ala	tcc Ser	tct Ser	3312
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Gln Ala Pro Gly Lys Val Trp Trp Arg Leu Arg Lys Thr Cys Tyr His	
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Lys Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile Val Asp	
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gcc ctc atg atg tcc ctg cct gcc ctc ttc aac atc ggg ctg ctg ctc Ala Leu Met Met Ser Leu Pro Ala Leu Phe Asn Ile Gly Leu Leu Leu 1650 1655 1660	4992
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cca gcc gtg ggc atc ctc ttc ttc acc acc tac atc atc atc tcc ttc Pro Ala Val Gly Ile Leu Phe Phe Thr Thr Tyr Ile Ile Ile Ser Phe 1745 1750 1755 1760	5280
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ttc acc aaa agg gtc ctg ggg gag tct ggg gag atg gac gcc ctg aag Phe Thr Lys Arg Val Leu Gly Glu Ser Gly Glu Met Asp Ala Leu Lys 1860 1865 1870	5616
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 Tyr Glu Pro Ile Thr Thr Leu Arg Arg Lys His Glu Glu Val Ser
 1890 1895 1900

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 Ala Met Val Ile Gln Arg Ala Phe Arg Arg His Leu Leu Gln Arg Ser
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 1925 1930 1935

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 1940 1945 1950

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 35 40 45

Glu Glu Ala Pro Arg Pro Gln Leu Asp Leu Gln Ala Ser Lys Lys Leu
 50 55 60

Pro Asp Leu Tyr Gly Asn Pro Pro Gln Glu Leu Ile Gly Glu Pro Leu
 65 70 75 80

Glu Asp Leu Asp Pro Phe Tyr Ser Thr Gln Lys Thr Phe Ile Val Leu
 85 90 95

Asn Lys Gly Lys Thr Ile Phe Arg Phe Ser Ala Thr Asn Ala Leu Tyr
 100 105 110

Val Leu Ser Pro Phe His Pro Val Arg Arg Ala Ala Val Lys Ile Leu
 115 120 125

5712
 5760
 5808
 5856
 5904
 5952
 6000
 6048

Val	His	Ser	Leu	Phe	Asn	Met	Leu	Ile	Met	Cys	Thr	Ile	Leu	Thr	Asn	
130						135						140				
Cys	Val	Phe	Met	Ala	Gln	His	Asp	Pro	Pro	Pro	Trp	Thr	Lys	Tyr	Val	
145					150					155					160	
Glu	Tyr	Thr	Phe	Thr	Ala	Ile	Tyr	Thr	Phe	Glu	Ser	Leu	Val	Lys	Ile	
				165					170					175		
Leu	Ala	Arg	Ala	Phe	Cys	Leu	His	Ala	Phe	Thr	Phe	Leu	Arg	Asp	Pro	
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Trp	Asn	Trp	Leu	Asp	Phe	Ser	Val	Ile	Ile	Met	Ala	Tyr	Thr	Thr	Glu	
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Phe	Val	Asp	Leu	Gly	Asn	Val	Ser	Ala	Leu	Arg	Thr	Phe	Arg	Val	Leu	
	210					215					220					
Arg	Ala	Leu	Lys	Thr	Ile	Ser	Val	Ile	Ser	Gly	Leu	Lys	Thr	Ile	Val	
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Gly	Ala	Leu	Ile	Gln	Ser	Val	Lys	Lys	Leu	Ala	Asp	Val	Met	Val	Leu	
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Thr	Val	Phe	Cys	Leu	Ser	Val	Phe	Ala	Leu	Ile	Gly	Leu	Gln	Leu	Phe	
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Met	Gly	Asn	Leu	Arg	His	Lys	Cys	Val	Arg	Asn	Phe	Thr	Ala	Leu	Asn	
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Gly	Thr	Asn	Gly	Ser	Val	Glu	Ala	Asp	Gly	Leu	Val	Trp	Glu	Ser	Leu	
	290					295					300					
Asp	Leu	Tyr	Leu	Ser	Asp	Pro	Glu	Asn	Tyr	Leu	Leu	Lys	Asn	Gly	Thr	
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Thr	Ser	Phe	Asp	Ser	Phe	Ala	Trp	Ala	Phe	Leu	Ala	Leu	Phe	Arg	Leu	
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Met	Thr	Gln	Asp	Cys	Trp	Glu	Arg	Leu	Tyr	Gln	Gln	Thr	Leu	Arg	Ser	
	370					375					380					
Ala	Gly	Lys	Ile	Tyr	Met	Ile	Phe	Phe	Met	Leu	Val	Ile	Phe	Leu	Gly	
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Ser	Phe	Tyr	Leu	Val	Asn	Leu	Ile	Leu	Ala	Val	Val	Ala	Met	Ala	Tyr	
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Glu	Glu	Gln	Asn	Gln	Ala	Thr	Ile	Ala	Glu	Thr	Glu	Glu	Lys	Glu	Lys	
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Arg	Phe	Gln	Glu	Ala	Met	Glu	Met	Leu	Lys	Lys	Glu	His	Glu	Ala	Leu	
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Thr	Ile	Arg	Gly	Val	Asp	Thr	Val	Ser	Arg	Ser	Ser	Leu	Glu	Met	Ser	
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Ser	Asp	Ser	Glu	Asp	Gly	Pro	Arg	Ala	Met	Asn	His	Leu	Ser	Leu	Thr
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Arg	Gly	Leu	Ser	Arg	Thr	Ser	Met	Lys	Pro	Arg	Ser	Ser	Arg	Gly	Ser
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Ile	Phe	Thr	Phe	Arg	Arg	Arg	Asp	Leu	Gly	Ser	Glu	Ala	Asp	Phe	Ala
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Asp	Asp	Glu	Asn	Ser	Thr	Ala	Arg	Glu	Ser	Glu	Ser	His	His	Thr	Ser
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Leu	Leu	Val	Pro	Trp	Pro	Leu	Arg	Arg	Thr	Ser	Ala	Gln	Gly	Gln	Pro
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Ser	Pro	Gly	Thr	Ser	Ala	Pro	Gly	His	Ala	Leu	His	Gly	Lys	Lys	Asn
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Ser	Thr	Val	Asp	Cys	Asn	Gly	Val	Val	Ser	Leu	Leu	Gly	Ala	Gly	Asp
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Pro	Glu	Ala	Thr	Ser	Pro	Gly	Ser	His	Leu	Leu	Arg	Pro	Val	Met	Leu
	610					615					620				
Glu	His	Pro	Pro	Asp	Thr	Thr	Thr	Pro	Ser	Glu	Glu	Pro	Gly	Gly	Pro
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Gln	Met	Leu	Thr	Ser	Gln	Ala	Pro	Cys	Val	Asp	Gly	Phe	Glu	Glu	Pro
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Gly	Ala	Arg	Gln	Arg	Ala	Leu	Ser	Ala	Val	Ser	Val	Leu	Thr	Ser	Ala
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Leu	Glu	Glu	Leu	Glu	Glu	Ser	Arg	His	Lys	Cys	Pro	Pro	Cys	Trp	Asn
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Arg	Leu	Ala	Gln	Arg	Tyr	Leu	Ile	Trp	Glu	Cys	Cys	Pro	Leu	Trp	Met
	690					695					700				
Ser	Ile	Lys	Gln	Gly	Val	Lys	Leu	Val	Val	Met	Asp	Pro	Phe	Thr	Asp
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Leu	Thr	Ile	Thr	Met	Cys	Ile	Val	Leu	Asn	Thr	Leu	Phe	Met	Ala	Leu
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Glu	His	Tyr	Asn	Met	Thr	Ser	Glu	Phe	Glu	Glu	Met	Leu	Gln	Val	Gly
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Asn	Leu	Val	Phe	Thr	Gly	Ile	Phe	Thr	Ala	Glu	Met	Thr	Phe	Lys	Ile
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Ile	Ala	Leu	Asp	Pro	Tyr	Tyr	Tyr	Phe	Gln	Gln	Gly	Trp	Asn	Ile	Phe
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 Lys Leu Ala Lys Ser Trp Pro Thr Leu Asn Thr Leu Ile Lys Ile Ile
 820 825 830
 Gly Asn Ser Val Gly Ala Leu Gly Asn Leu Thr Leu Val Leu Ala Ile
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 Asp Asn Leu Thr Ala Pro Asp Glu Asp Arg Glu Met Asn Asn Leu Gln
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 Lys Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile Val Asp
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 1460 1465 1470

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Phe Asn Gln Gln Lys Lys Lys Leu Gly Gly Gln Asp Ile Phe Met Thr
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 Leu Ile Cys Leu Asn Met Val Thr Met Met Val Glu Thr Asp Asp Gln
 1540 1545 1550
 Ser Pro Glu Lys Ile Asn Ile Leu Ala Lys Ile Asn Leu Leu Phe Val
 1555 1560 1565
 Ala Ile Phe Thr Gly Glu Cys Ile Val Lys Leu Ala Ala Leu Arg His
 1570 1575 1580
 Tyr Tyr Phe Thr Asn Ser Trp Asn Ile Phe Asp Phe Val Val Val Ile
 1585 1590 1595 1600
 Leu Ser Ile Val Gly Thr Val Leu Ser Asp Ile Ile Gln Lys Tyr Phe
 1605 1610 1615
 Phe Ser Pro Thr Leu Phe Arg Val Ile Arg Leu Ala Arg Ile Gly Arg
 1620 1625 1630
 Ile Leu Arg Leu Ile Arg Gly Ala Lys Gly Ile Arg Thr Leu Leu Phe
 1635 1640 1645
 Ala Leu Met Met Ser Leu Pro Ala Leu Phe Asn Ile Gly Leu Leu Leu
 1650 1655 1660
 Phe Leu Val Met Phe Ile Tyr Ser Ile Phe Gly Met Ala Asn Phe Ala
 1665 1670 1675 1680
 Tyr Val Lys Trp Glu Ala Gly Ile Asp Asp Met Phe Asn Phe Gln Thr
 1685 1690 1695
 Phe Ala Asn Ser Met Leu Cys Leu Phe Gln Ile Thr Thr Ser Ala Gly
 1700 1705 1710
 Trp Asp Gly Leu Leu Ser Pro Ile Leu Asn Thr Gly Pro Pro Tyr Cys
 1715 1720 1725
 Asp Pro Thr Leu Pro Asn Ser Asn Gly Ser Arg Gly Asp Cys Gly Ser
 1730 1735 1740
 Pro Ala Val Gly Ile Leu Phe Phe Thr Thr Tyr Ile Ile Ile Ser Phe
 1745 1750 1755 1760
 Leu Ile Val Val Asn Met Tyr Ile Ala Ile Ile Leu Glu Asn Phe Ser
 1765 1770 1775
 Val Ala Thr Glu Glu Ser Thr Glu Pro Leu Ser Glu Asp Asp Phe Asp
 1780 1785 1790
 Met Phe Tyr Glu Ile Trp Glu Lys Phe Asp Pro Glu Ala Thr Gln Phe
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Ile Glu Tyr Ser Val Leu Ser Asp Phe Ala Asp Ala Leu Ser Glu Pro
 1810 1815 1820
 Leu Arg Ile Ala Lys Pro Asn Gln Ile Ser Leu Ile Asn Met Asp Leu
 1825 1830 1835 1840
 Pro Met Val Ser Gly Asp Arg Ile His Cys Met Asp Ile Leu Phe Ala
 1845 1850 1855
 Phe Thr Lys Arg Val Leu Gly Glu Ser Gly Glu Met Asp Ala Leu Lys
 1860 1865 1870
 Ile Gln Met Glu Glu Lys Phe Met Ala Ala Asn Pro Ser Lys Ile Ser
 1875 1880 1885
 Tyr Glu Pro Ile Thr Thr Thr Leu Arg Arg Lys His Glu Glu Val Ser
 1890 1895 1900
 Ala Met Val Ile Gln Arg Ala Phe Arg Arg His Leu Leu Gln Arg Ser
 1905 1910 1915 1920
 Leu Lys His Ala Ser Phe Leu Phe Arg Gln Gln Ala Gly Ser Gly Leu
 1925 1930 1935
 Ser Glu Glu Asp Ala Pro Glu Arg Glu Gly Leu Ile Ala Tyr Val Met
 1940 1945 1950
 Ser Glu Asn Phe Ser Arg Pro Leu Gly Pro Pro Ser Ser Ser Ile
 1955 1960 1965
 Ser Ser Thr Ser Phe Pro Pro Ser Tyr Asp Ser Val Thr Arg Ala Thr
 1970 1975 1980
 Ser Asp Asn Leu Gln Val Arg Gly Ser Asp Tyr Ser His Ser Glu Asp
 1985 1990 1995 2000
 Leu Ala Asp Phe Pro Pro Ser Pro Asp Arg Asp Arg Glu Ser Ile Val
 2005 2010 2015

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